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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,071	08/18/2003	Paul Lum	10004024-2	4192

7590 07/12/2004

AGILENT TECHNOLOGIES, INC.  
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EXAMINER

RODRIGUEZ, WILLIAM H

ART UNIT	PAPER NUMBER
3746	

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/643,071	LUM, PAUL <i>[Signature]</i>
<b>Examiner</b>	<b>Art Unit</b>	
	William H. Rodriguez	3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 8/18/03 (preliminary amendment)  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,4-7,9 and 14 is/are rejected.  
 7) Claim(s) 2,3,8 and 10-13 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 18 August 2003 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “*disposable cartridge, point-of-care analytic device, a network of conduits and reservoirs, an external electromagnet, and a micro-coil (claims 1-14)*” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the paddle wheel" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. Notice that claim 6 does not positively recite a paddle wheel. The recitation of a paddle wheel first appears on claim 8 not claim 6. However, claim 10 depends from claim 6. Appropriate correction is required.

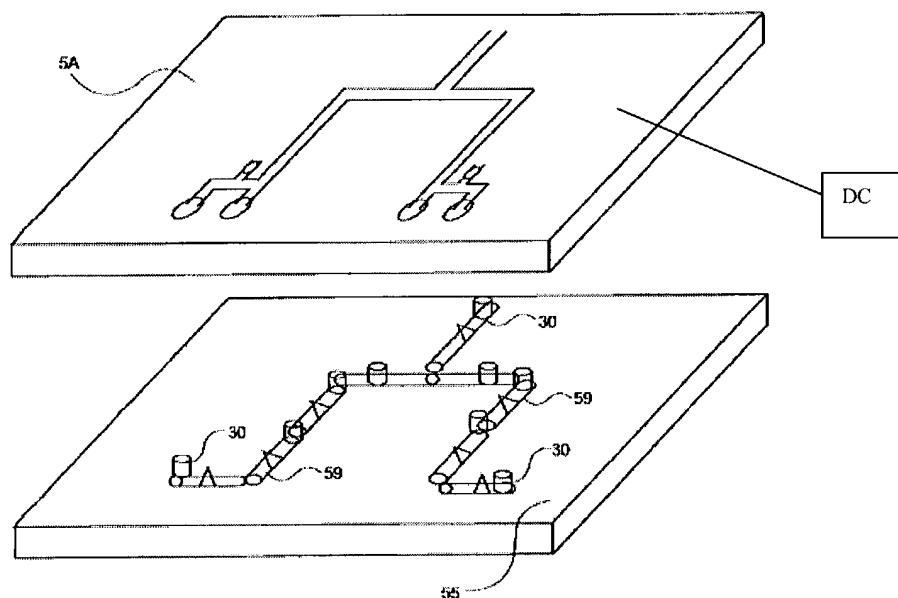
***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

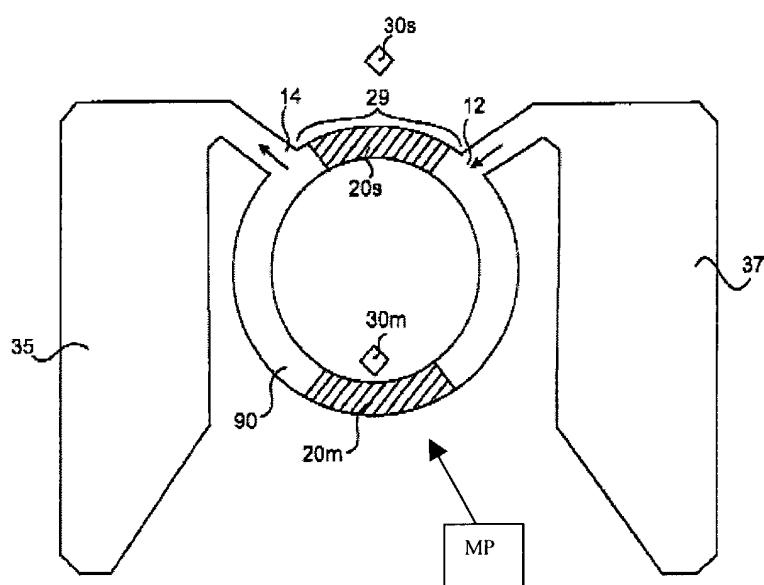
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 6, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by **Kamholz et al. (U.S. 6,415,821)**.



**FIG. 6A**



**FIG. 10**

With respect to claim 1, **Kamholz** teaches a disposable cartridge DC comprising: a network of conduits 12, 14 and reservoirs 35, 37 within said cartridge, at least one micro-pump MP fluidly coupled to said network for transporting small volumes of biological fluid, said pump comprising: a rotatable portion having a magnetic core 30m and configured to be rotatable by alternating inductive magnetic fields to urge fluid through said network. See particularly **Figures 6A, 10** and column 1 lines 22-24 of Kamholz.

With respect to claim 5, **Kamholz** teaches that a plurality of micro-pumps are placed within the network of the cartridge. See particularly **Figures 12, 13** of Kamholz.

With respect to claim 6, **Kamholz** teaches a device comprising: a disposable cartridge DC, a network of conduits 12, 14 and reservoirs 35, 37 within said cartridge; a micro-pump MP fluidly coupled to said network for transporting small volumes of biological fluid, said pump comprising a rotatable portion configured to be rotatable by alternating inductive magnetic fields to urge fluid through said network; an external electromagnet (column 3 lines 37-38; column 4 lines 47-49; column 9 lines 25-26) providing said alternating inductive magnetic fields for causing the rotatable portion to move to transport small volumes, said electromagnet positioned external of said disposable cartridge and fluidically isolated from said micro-pump. See particularly **Figures 6A, 10** of Kamholz.

With respect to claim 7, **Kamholz** teaches that said electromagnet is reused with successive disposable cartridges and the rotatable portion is contained in the cartridge and does not contaminate the electromagnet. See particularly **Figures 6A, 10**; column 3 lines 37-38; column 4 lines 47-49; column 9 lines 25-26 of Kamholz.

With respect to claim 9, **Kamholz** teaches the actual pumping mechanism of the micro pump is completely isolated from said external electromagnet. See particularly **Figures 6A, 10**; column 3 lines 37-38; column 4 lines 47-49; column 9 lines 25-26 of Kamholz.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kamholz et al. (U.S. 6,415,821)**.

**Kamholz** teaches that the invention can be used for several applications such as: biomedical, medical (i.e., blood, medicine, etc), biothechnical, etc. **Kamholz** does not teach that the rotatable portion does not exceed the level that the level that would puncture or damage the blood cells. However, it is well known in the art that one design consideration when designing a blood pump is to prevent the pump from degrading the quality of the blood by damaging the blood cells. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed **Kamholz's** rotatable portion in a way that it would have not damage the blood cells so as to prevent degradation of the quality of the blood being pumped to a patient. See particularly **Figures 6A, 10** and column 1 lines 22-24 of Kamholz.

***Allowable Subject Matter***

8. Claims 2, 3, 8, 11, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Rodriguez whose telephone number is 703-605-1140. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine R Yu can be reached on 703-308-2675. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Rodriguez  
Examiner  
Art Unit 3746